

Claims:

1. An active heating system for a pipeline, comprising:

an elongate pipeline with an interior for carrying a substance to be heated;

a tube having a smaller cross section than the pipeline and passing through

the interior of the pipeline for the tube to be in thermal communication with the material in the

5 pipeline so that heated material passing through the tube will heat the pipeline and the material in the pipeline.

2. The system of Claim 1, further comprising insulation on the pipeline.

3. The system of Claim 1, wherein the pipeline has an interior wall defining the pipeline and the tube is disposed at the wall of the pipeline and extends along the wall of the pipeline.

4. The system of Claim 3, wherein the pipeline has ends and the tube is attached to the ends of the pipeline.

FS 5. The system of Claim 4, wherein the tube is configured in the form of a helix that passes along the pipeline and is in contact with the interior of the pipeline extending along the pipeline.

6. The system of Claim 1, wherein the tube is substantially unattached to the interior of the pipeline over substantially the entire length of the tube and the pipeline.

7. The system of Claim 1, wherein the tube is configured in the form of a helix that passes along the pipeline.

8. The system of Claim 7, wherein the helix of the tube is in contact with the interior of the pipeline extending along the pipeline.

9. A method of heating a liquid that is passing through a pipeline comprising:
passing a tube of smaller diameter through the pipeline of larger diameter;
passing the material through the pipeline;
passing a heated liquid through the tube in the pipeline and permitting thermal transmission from the tube in the pipeline to the liquid passing through the pipeline for heating the liquid passing through the pipeline and for heating the pipeline.

10. The method of Claim 9, further comprising attaching the tube to ends of the pipeline.

11. The method of Claim , further comprising forming the tube into a helix while passing the tube through the pipeline.